



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,948	08/26/2003	Takahiro Endo	SIC-03-028	4079

29863 7590 04/25/2005

DELAND LAW OFFICE  
P.O. BOX 69  
KLAMATH RIVER, CA 96050-0069

EXAMINER

ELKASSABGI, HEBA

ART UNIT PAPER NUMBER

2834

DATE MAILED: 04/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/648,948

Applicant(s)

ENDO ET AL.

Examiner

Heba Elkassabgi

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 9-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-20 is/are allowed.
- 6) ☒ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 5,9-11,14-16, and 17-20- is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

The Examiner appreciates Applicant's cooperation in reviewing the specification for errors.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shirasago et al. (JP 2001037108) and further in view of Segawa (US Patent 4089231).

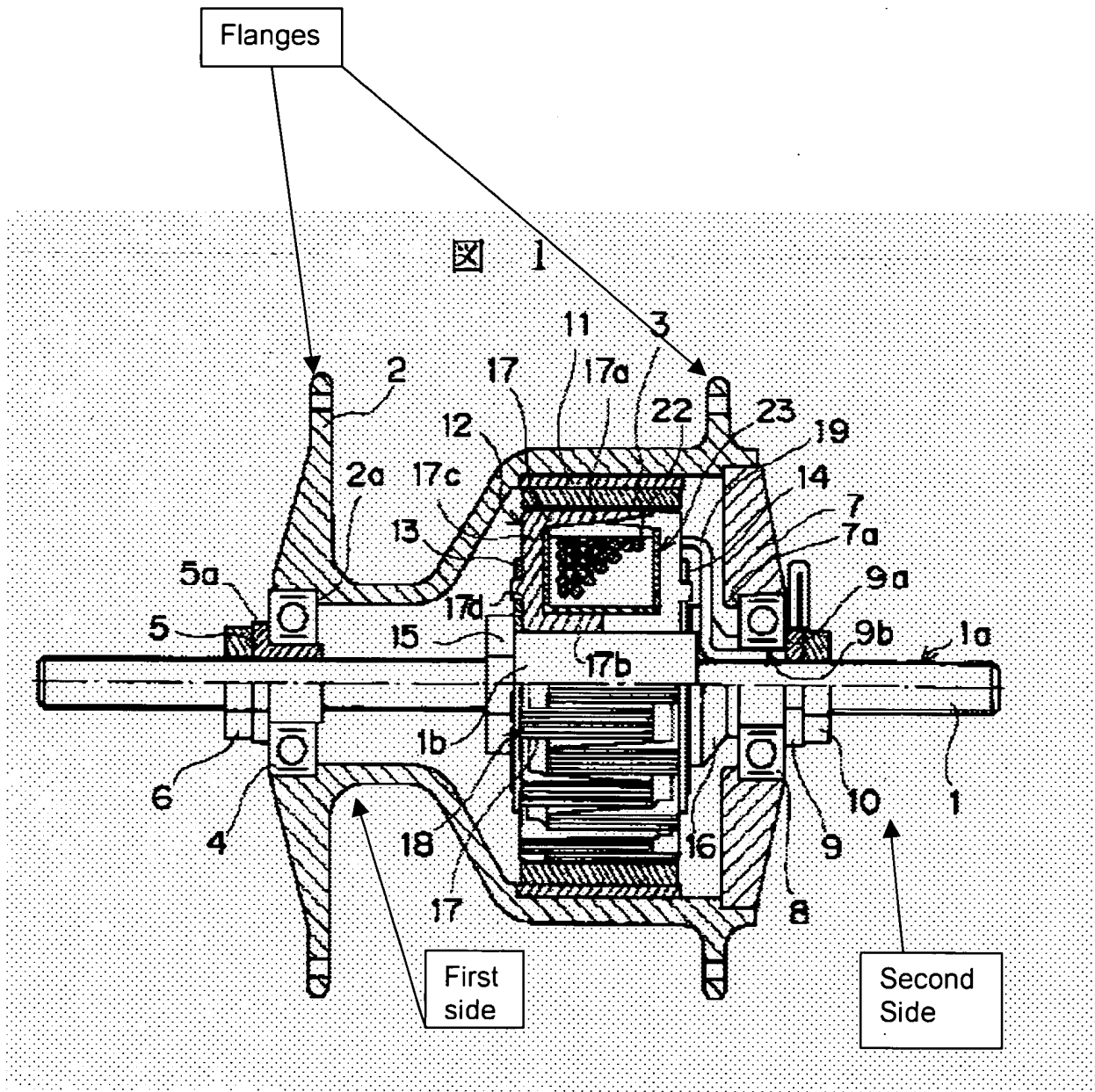
Shirasago et al. a bicycle hub having a hub spindle (1) adapted to be mounted to a frame of the bicycle (not shown). A hub body (2) disposed around the hub spindle (1), in which the hub body has a first side (see below) and a second side (see below). The hub body (2) has a pair of axially spaced hub flanges (see below). A plurality of bearings (4,8) disposed between the hub body (2) and the hub spindle (1) for rotatably supporting the hub body (2) relative to the hub spindle (1). A generating mechanism (18, 22,3) disposed between the hub body (2) and the hub spindle (1), in which the generating mechanism (18.22,3) generates electricity in response to rotation of the hub body (2) relative to the hub spindle (1). The cover member (7) covers an opening in the

Art Unit: 2834

hub (2) that has a diameter sufficient to allow removal of the generating mechanism (18,22,3). However, Shirasago et al. does not disclose a freewheel and sprockets.

Segawa discloses in figure 1 a freewheel (1) that is disposed on a first side of the hub body (not shown see column 3 lines 3-5), with the freewheel (1) being adapted to mount a plurality of sprockets (12) and that the freewheel is composed of having a cover member (11, support that is cylindrical of a uniform diameter), in order to have each sprocket may be freely rotatable so to provide rotary transmission.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine the structure of Shirasago et al. with the structure of the freewheel and sprockets of Segawa for the purpose discussed above.



3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shirasago et al. and further in view of Segawa (US Patent 4089231).

Shirasago et al. a bicycle hub having a hub spindle (1) adapted to be mounted to a frame of the bicycle (not shown). A hub body (2) disposed around the hub spindle (1), in which the hub body (2) has a first side (see above) and a second side (see above). The hub body (2) has a pair of axially spaced hub flanges (see above). A plurality of bearings (4,8) disposed between the hub body (2) and the hub spindle (1) for rotatably supporting the hub body (2) relative to the hub spindle (1). A generating mechanism (18,22,3) disposed between the hub body (2) and the hub spindle (1), in which the generating mechanism (18,22,3) generates electricity in response to rotation of the hub body (2) relative to the hub spindle (1). A second side (see above) of the hub body (2) defining an opening having a diameter (see figure above) sufficient to allow removal of the generating mechanism (18,22,3) and further having a cover member (14) disposed at the second side (see above) of the hub body (2).

Segawa discloses in figure 1 a freewheel (1) that is disposed on a first side of the hub body (not shown see column 3 lines 3-5), with the freewheel (1) being adapted to mount a plurality of sprockets (12) and that the freewheel is composed of having a cover member (11, support that is cylindrical of a uniform diameter), in order to have each sprocket may be freely rotatable so to provide rotary transmission.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine the structure of Shirasago et al. with the structure of the freewheel and sprockets of Segawa for the purpose discussed above.

2. Claim 2-4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirasago et al. (JP 2001037108) and Segawa (US Patent 4089231) as applied to claims 1 and 12 above, and further in view of Metzinger (US Patent 5667233).

Shirasago et al. and Segawa disclosed the claimed invention except for the brake structure.

Metzinger disclose in figure 3, a bicycle hub having a brake device-mounting member (44) that is disposed on the second side of the hub body (28). In regards to claim 3, a brake disk (56) is coupled to the brake device-mounting member (44). In regards to claim 4, a brake drum (28, the hub also serves as a brake drum see figure 5) coupled to the brake device-mounting member (44) in order to advantageously dispose the brake device within the hub. In regards to claim 13, a brake device-mounting member (44) is disposed on the cover member (28).

It would have been obvious at the item the invention was made to a person having ordinary skill in the art to combine the structure of Shirasago et al. and Segawa as disclosed above and in combination with Metzinger in order to advantageously dispose the brake device within the hub.

***Allowable Subject Matter***

Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Prior art does not disclose a combination of the base claims with a roller brake.

Claims 9 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Prior art does not disclose a hub body having a threaded portion that engages a threaded portion of the cover portion.

Dependent claims 10-11 and 15-16 are allowed for being dependent upon either claim 9 or 14.

Independent claims 17 and 20 are allowed as previously indicated in the office action of 10/06/2004.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not



Art Unit: 2834

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

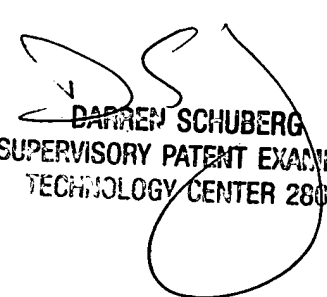
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heba Elkassabgi whose telephone number is 571-272-2023. The examiner can normally be reached on Weekdays, 9:00 am to 7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Heba Elkassabgi

United States Patent and Trademark Office  
Patent Examiner AU 2834  
Class 310- Electrical Generator/Motor Structure

  
DARREN SCHUBERG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800